

Markman Brief Part Three

Concentrates.” *Id.* at 3 (emphasis in original omitted in part). Mr. Dake’s declaration likewise stresses that the demonstrated “juice beverages of the present invention” were “prepared according to the premix method of the present invention.” Exh. 7 at ¶¶ 3, 5 (emphasis added).

C. P&G’s Remarks Distinguished the Prior Art by Reliance on the Recited Citric Acid to Malic Acid Ratio of the Added Acids

While Coca-Cola has heretofore focused principally on the “acid component comprising a mixture of citric acid and malic acid” language in claim 1, it is important to remember that the claim’s “acid component” also recites that the acid mixture has a “weight ratio of citric acid: malic acid of from about 5:95 to 90:10.” Exh. 1 at col. 13, lns. 21-23. P&G affirmatively relied on this limitation to distinguish the claimed beverage from the prior art beverage of Sperti that the examiner relied upon to teach a citrus drink formulated with both added calcium and acids to the base juice. *See* Exh. 8 at 7-9. In the process, it made clear that the claimed weight ratio applies to the acids added to the base juice.

In the examiner’s view, “[t]he [beverage] claims appear to differ from Sperti et al in the recitation of the specific calcium level utilized and in the recitation of the malic acid to citric acid ratio utilized.” Exh. 2 at 4 (emphasis added). The examiner additionally noted that “Kaji et al teach a [sic] calcium fortified carbonated fruit drinks containing 0.6% calcium and a one to one ratio of citrate to malate” and concluded that “[i]t would be obvious to one of ordinary skill in the art to utilize the calcium content and citrate to malate ratio of Kaji in the fruit juice drink of Sperti et al since such a variation appears to [be] within the determination of one of ordinary skill in the art of beverage formulation.” *Id.*

To distinguish the claimed inventions over Sperti, one of the arguments made by P&G was that Sperti taught extended juice products containing “at least 99% citric acid/citrate combined, and less than 1% malic acid,” which would encourage calcium precipitation out of the

juice at the claimed high levels. Exh. 8 at 8-9 (emphasis in original); *see also* Exh. 6 at 5. P&G, however, also asserted that “the weight ratio of citric acid: malic acid defined in Claim 1 is no greater than 90:10.” Exh. 8 at 9 (emphasis added in part and in original in part).

Since Sperti added citrate and malic acid to a base juice in a 99% to 1% ratio, Exh. 3 at col. 5, lns. 9-20, P&G’s remarks should be viewed as a clear concession that the claimed ratio necessarily refers to the ratio of added citric acid and malic acid prior to mixing with the natural acids in the base juice. This is also how the examiner would reasonably have interpreted such remarks.⁸ No other purpose can be seen for P&G’s remarks if the claimed ratio instead referred to the ratio of total acids in the final beverage, because the ratio of total acids in Sperti’s final beverage was not discussed. This concession in the prosecution history provides yet another basis for concluding that the claims require an acid component comprising the acids naturally

⁸ The ‘847 patent never discusses the acid ratio of the base juice alone in connection with the claimed invention. The only disclosed ratio of the mixture of acids in the acid component is in connection with the acids in the premix solution. *See, e.g.*, Exh. 1 at col. 4, lns. 9-11, col. 6, lns. 18-28, col. 8, lns. 24-39, col. 11, lns. 58-60, & col. 12, lns. 22-24. The patent examples additionally reference the acid ratio of the final beverage composition, including the base juice acids, but that ratio is not recited in the claims. The identical acid ratio claim limitation, however, is found in claim 1 of the related ‘963 patent, where it clearly refers to the added acids in the “premix solution.” *See* Exh. 13 at col. 13, lns. 31-35 (emphasis added). Coca-Cola submits that acid ratios in these related patents should be construed consistently. *See Weber Elec. Co v. E. H. Freeman Elec. Co.*, 256 U.S. 668, 678 (1921) (construing term “telescopically received” by referencing its use in patentee’s later patent); *McClain v. Ortmyer*, 141 U.S. 419, 425 (1891) (statements made by patentee to the PTO in prosecuting a second patent application that the use of a single spring/hook as claimed in the second patent was different from the use of a double spring as claimed in the first application precluded the patentee from asserting that an accused device that used a single spring hook infringed the first patent that claimed the double spring); *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1159 (Fed. Cir. 1997) (characterizing statements made in a reexamination of a child patent as “most compelling” and using them to construe the term “elasticity” in claims of the child patent *and* the claims of the parent patent where the claims were characterized as being “substantially similar”).

present in the base juice and a mixture of citric and malic acids discretely added to the base juice.⁹

The prosecution history taken as a whole consistently shows that P&G did not intend the claimed invention to cover direct calcium-supplemented fruit juice beverages that utilized the natural acids of the base juice alone to solubilize the calcium and that it was limiting itself to calcium-supplemented fruit juice beverages that had an acid component that included added acids to solubilize the calcium and to provide desirable taste properties. Unlike P&G's current litigation position, use of the natural acid system of the base juice was disavowed, not embraced by P&G. The only purpose in demonstrating the problems of beverages that were supplemented with calcium without the use of added acids, filing the Dake declaration, and for making such remarks on the record about the problems of direct calcium addition without the use of added acids, was to distinguish the claimed compositions from any such beverages. *See* Exh. 19 at 97-98, 102-04, 108.

The examiner was not only entitled to rely upon P&G's remarks to constitute a disclaimer of coverage for direct calcium-supplemented fruit juice beverages, it is clear that she likewise understood the acid ratio limitation to refer to the ratio of added acids. Having taken such positions during prosecution to gain allowance over the prior art, P&G cannot now run away from such positions and argue a contrary interpretation of its claims before this Court. *See Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985) (The

⁹ The examiner similarly relied upon Kaji as teaching the addition of equal parts citrate and malate. Exh. 2 at 4. Mr. Dake's reproduction of a beverage according to Kaji employed added citric and malic acid in essentially a 50:50 ratio. Exh. 7 at ¶ 11. P&G's attorney likewise viewed this as referring to a value within the claimed ratio and made reference to it in his disparagement of the Kaji beverage. Exh. 6 at 5.

prosecution history limits the interpretation of claims “to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”).

VII. OTHER ADMISSIONS BY P&G AND ITS LICENSEE CONFIRM THAT THE CLAIMED BEVERAGE REQUIRES ADDED ACIDS TO SOLUBILIZE THE CALCIUM AND TO PROVIDE DESIRABLE TASTE PROPERTIES

P&G has repeatedly and consistently characterized the invention of its ‘847 patent in related patent proceedings and in other public documents in precisely the manner proposed by Coca-Cola. These various pre-litigation admissions of P&G provide further corroboration that Coca-Cola’s interpretation of the claims based on the specification and the prosecution history is the correct and intended one. Examination of such extrinsic evidence is permitted, even when the intrinsic record is clear, provided that it does not contradict or limit the meaning of the claims discerned from the intrinsic evidence of record. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308-09 (Fed. Cir. 1999); *see also Vitronics Corp.*, 90 F.3d at 1584 (“[E]xtrinsic evidence in general, and expert testimony in particular, may be used only to help the court come to the proper understanding of the claims; it may not be used to vary or contradict the claim language.”).

A. P&G’s Substantially Similar and Related European Counterpart Requires Discretely Added Acids

After twelve years of prosecution in the European Patent Office, including oppositions by three third parties, P&G obtained European Patent No. 0 244 903 B2 as a counterpart to the ‘847 patent on August 4, 1999. Exh. 14. This patent has both product claims substantially similar to those in the ‘847 patent and method claims substantially similar to those in the ‘963 patent. In the course of some of those opposition proceedings, P&G made numerous admissions about the

claimed invention that are entirely consistent with Coca-Cola's construction of the '847 patent claims.¹⁰

For example, in an attempt to distinguish the cited Ayers patent, which disclosed the addition of calcium carbonate to orange juice, P&G explicitly characterized its inventive feature of its claimed beverage as the presence of a "precisely defined" amount of a particular acid component added to the base juice and not merely acids added to the base juice by random chance:

Basically, [Ayers] provides the man of the art with the information that the necessary carbonization of fruit juice can be obtained by reacting calcium carbonate with citric acid in a closed container in the presence of the fruit juice. This will by no means be considered by the man of the art to provide a guidance leading him to the subject matter claimed. Even when it is stated that in place of the preferred citric acid also other organic acids, such as tartaric and malic acid may be used, this will not lead the man of the art to the specific acid component used according to the invention, let alone its combination with the other features of claim 1. Even when by chance when using malic acid in a citrus fruit juice citric acid and malic acid will be present at the same time, this will not call for the specific feature of the present invention to add a precisely defined amount of a precisely defined acid component[.] juicy fruit juice and the solubilized calcium.

Exh. 15 at 18, ln. 36, to 19, ln. 3 (emphasis added). In making its argument, P&G clearly interpreted the claimed acid component of claim 1, which was a product claim in the European application as well, to require a mixture of citric and malic acids, discretely added in the claimed ratio, to the naturally occurring fruit juice acids.

¹⁰ See, e.g., *Glaxo Group Ltd. v. Ranbaxy Pharm., Inc.*, 262 F.3d 1333, 1337 (Fed. Cir. 2001) (relying on statements made by applicant in foreign counterpart to construe "essentially free from crystalline material"); *Alloc, Inc. v. U.S. Int'l Trade Comm'n*, 342 F.3d 1361, 1371 (Fed. Cir. 2003) (using PCT prosecution history in conjunction with statements in the specification to construe claim); *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1349 (Fed. Cir. 2000) (using expert testimony and evidence of patentee's and infringer's own usage of term in submission to foreign government office to affirm district court's claim construction).

Similarly, P&G distinguished JP-A-56-97248 (Kawai), which described dissolving less than 70% citric acid and greater than 30% malic acid in water and then adding calcium hydroxide and calcium carbonate to this acid solution as a way to supplement calcium in food and drinks, from its product claims as follows:

However, this information will not lead the man of the art to the subject matter of the present invention, in that no help is provided as to have [sic: how] to solve the problem referred to above. For doing this, the man of the art needs more than the information that a combination of calcium citrate and calcium malate in a specific ratio may have a higher solubility than calcium citrate alone, and that it is necessary to know that a specific amount of solubilized calcium must be added to the fruit juice beverage in combination with a specific combination of acid components, which in fact are not to be considered a mixture of calcium citrate and calcium malate

Exh. 15 at 17, Ins. 23-30 (emphasis added). Once again, it can be seen that P&G characterized its beverage invention as requiring the addition of acids to effectively solubilize calcium.¹¹

B. P&G's Licensee, Tropicana, Has Acknowledged that the '847 Patent Requires Discretely Added Acids

Tropicana, P&G exclusive licensee of the '847 patent, was granted U.S. Patent No. 6,565,898 on May 20, 2003. *See* Exh. 18. Both the '847 and '963 P&G patents are cited on the face of these patents.

The '847 patent is expressly discussed in the Tropicana patent specification as follows:

¹¹ P&G's Japanese Patent No. 2559732 included product claims corresponding to the '847 patent's product claims, as well as method claims corresponding to the '963 patent's method claims. *See* Exh. 16. During the course of such prosecution, P&G asserted that the calcium in the claimed beverage "does not generate a 'strange odor,'" that it "has an unexpectedly high absorptivity/biological applicability," and that it "remains soluble even in the presence of fruit juice and acid components." Exh. 17 at 2, Ins. 20-22 (emphasis added). The calcium was added to base juice in an aqueous solution containing "a prescribed amount of a mixture of" acids. Exh. 17 at 6, Ins. 7-8. This is yet another admission that the claimed invention employed added acid components *separate and distinct* from the naturally-occurring acids in the fruit juice itself for solubilizing calcium providing desirable taste properties. If, instead, the acid components were simply the fruit juice's acid components, there would have been no reason to separately enumerate the ingredients.

In addition it is well-known that beverages such as orange juice can be supplemented with calcium with the objective of addressing inadequate calcium in the diets of certain individuals, especially in connection with combating osteoporosis. Numerous approaches have been proposed or implemented in this regard. Included is the technology in patents such as Meyer et al., U.S. Pat. No. 5,474,793, Camden et al., U.S. Pat. No. 5,225,221, and Heckert, U.S. Patent No. 4,722,847, each incorporated hereinto by reference. These take the approach of adding to fruit juices a source of calcium together with a mixture of citric acid and malic acid. A complex solution is formed and mixed with the juice.

Exh. 18 at col. 1, ln. 66 - col. 2, ln. 10 (emphasis added). It is thus apparent that P&G's exclusive licensee of the '847 patent likewise views the calcium-supplemented fruit juice beverage of the '847 patent as constituting fruit juice mixed with added acids.

VIII. WHILE THE CLAIMS, AT A MINIMUM, REQUIRE THE PRESENCE OF ADDED CITRIC AND MALIC ACIDS TO SOLUBILIZE CALCIUM, THEY SHOULD BE NARROWLY CONSTRUED AND LIMITED TO THE PREMIX ADDITION OF CALCIUM SOLUBILIZED IN A MIXTURE OF CITRIC ACID AND MALIC ACID

In light of the claim language, the specification, the prosecution history, and the corroborating extrinsic evidence, it can be seen that P&G's claimed beverage requires the presence of added acids to solubilize calcium and provide desirable taste properties. It is well established, however, that claims are to be construed in a manner so as to uphold their validity. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1335 n.6 (Fed. Cir. 2003); *Wang Labs., Inc. v. America Online, Inc.*, 197 F.3d 1377, 1383 (Fed. Cir. 1999). Although P&G mentions two approaches to add acids to the base juice, the claims should be narrowly construed and limited to the premix addition of calcium solubilized in a mixture of citric acid and malic acid for three reasons: (1) the patent does not provide a legally adequate written description of anything other than the premix addition of acids and the inventor concedes he was not in possession of a broader invention; (2) the patent does not contain a legally enabling disclosure of anything other

than the premix addition of acids; and (3) P&G affirmatively limited the scope of its invention to the premix addition of acids to distinguish the prior art during prosecution.

Under the circumstances, Coca-Cola submits that the preferred embodiment with the premix addition of acids is the only truly disclosed and enabled embodiment. The Federal Circuit has repeatedly held that, where a limited construction is the only construction consistent with the specification, such a limited construction is proper and correct.¹² When the specification fails to describe or enable an embodiment broader than the “preferred” embodiment, the claims must be limited to the “preferred” embodiment.¹³

A. The Statutory Written Description Requirement Precludes a Broad Claim Interpretation Because the Inventor Was Not in Possession of a Direct Calcium-Supplemented Fruit Juice Beverage and No Such Embodiment Was Ever Described in the ‘847 Patent

One requirement for patent validity under 35 U.S.C. § 112, first paragraph, is that the patent specification must contain a sufficient written description of the claimed invention so as to show that the inventor in fact had possession of the claimed invention. *Union Oil Co. of California v. Atlantic Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000). “The purpose of the written description requirement is to prevent an applicant from later asserting that he invented

¹² *Biogen, Inc. v. Berlex Labs, Inc.*, 318 F.3d 1132, 1136-40 (Fed. Cir. 2003) (ruling that claims to a method of producing human interferon from Chinese hamster ovary cells using a DNA construct were limited to methods of using a single linked construct and a gene marker, even though such limitations were not expressly recited in the claims, because the only described embodiment used such a method); *Watts v. XL Sys. Inc.*, 232 F.3d 877, 883 (Fed. Cir. 2000) (construing claim term “dimensioned such that” consistent with the only embodiment set forth in the specification); *In re Baker Hughes, Inc.*, 215 F.3d 1297, 1302-03 (Fed. Cir. 2000) (PTO’s construction of “hydrocarbon” limitation in both gaseous and liquid states held too broad when written description failed to describe an embodiment where hydrocarbon was in anything but a liquid state); *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1301-02 (Fed. Cir. 1999) (construing the claim term “including” consistent with only embodiments in the specification); *Wang Labs.*, 197 F.3d at 1383 (construing the term “frame” consistent with the only system described and enabled in the specification).

¹³ *General Am. Transp. Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 770 (Fed. Cir. 1996) (the teaching in the specification was “not just the preferred embodiment of the invention; it is the *only* one described.”); *Modine Mfg. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1551 (Fed. Cir. 1996).

that which he did not; the applicant for a patent is therefore required to ‘recount his invention in such detail that his future claims can be determined to be encompassed within his original creation.’” *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003) (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1561 (Fed. Cir. 1991)).

In this case, the inventor, Heckert, admitted in his deposition that he had only invented a calcium-supplemented fruit juice beverage that consisted of fruit juice materials mixed with an added acid component comprising citric acid and malic acid used to solubilize calcium in a premix:

Q. Okay. You mentioned that the ‘847 patent can be made by other methods. Did I understand you correctly?

A. That’s correct.

Q. What other methods would allow someone to make a product under the ‘847 patent?

A. We learned after the fact that you can make this without a premix.

* * *

Q. When after the fact did you learn that?

* * *

A. And that was learned after these patents were filed and issued. That’s the best of my knowledge.^[14]

¹⁴ Exh. 19 at 67-70 (emphasis added). Although extrinsic in nature, the inventor’s testimony adverse to the patentee’s infringement case may be used to assist in the interpretation of claims. *See, e.g., Gentex Corp. v. Donnelly Corp.*, 69 F.3d 527, 530 (Fed. Cir. 1995) (inventor’s testimony that he did not intend for solid films to be included within his patent used to interpret claim and limit it to liquid film); *Jonsson v. The Stanley Works*, 903 F.2d 812, 821 (Fed. Cir. 1990) (ruling that district court’s reliance on inventor’s deposition testimony contrary to patentee’s litigation-induced interpretation was proper).